

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/089193 A3

(51) International Patent Classification⁷: **B32B 3/02**

(21) International Application Number:
PCT/US2005/008035

(22) International Filing Date: 14 March 2005 (14.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/553,656 15 March 2004 (15.03.2004) US

(71) Applicant and

(72) Inventor: **OAKLEY, William** [US/US]; 554 Green-
meadow Way, San Jose, CA 95129 (US).

(74) Agent: **VON TERSCH, Glenn, E.**; Perkins Coie LLP, 101
Jefferson Drive, Menlo Park, CA 94025 (US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

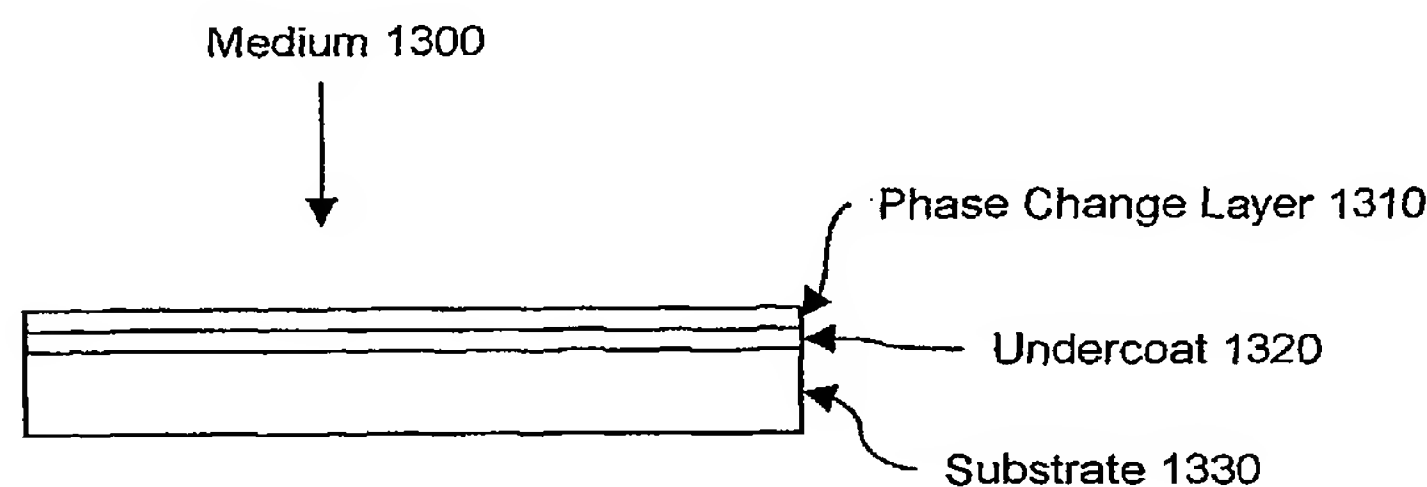
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

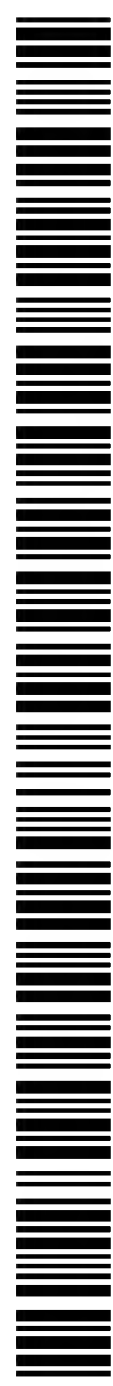
(88) Date of publication of the international search report:
11 May 2006

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: RECORDING MEDIUM



(57) Abstract: A method and apparatus for a recording medium (1300) is described. In one embodiment, the invention is an appa-
ratus. The apparatus includes a substrate (1330). The apparatus also includes a phase change layer (1310) disposed on the substrate
(1330). The phase change layer (1310) has a first phase with a first secondary emission ratio and a second phase with a second
secondary emission ratio.



WO 2005/089193 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/08035

A. CLASSIFICATION OF SUBJECT MATTER

IPC: B32B 3/02(2006.01)

USPC: 428/64.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 428/64.1, 64.5, 64.6; 430/270.13

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	US 2004/0086802 A1 (GIBSON) 06 May 2004, see Abstract.	1-28



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

21 February 2006 (21.02.2006)

Date of mailing of the international search report

10 MAR 2006

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Elizabeth E. Mulvaney

Telephone No. 571-272-1700

J. W. Mulvaney
EE